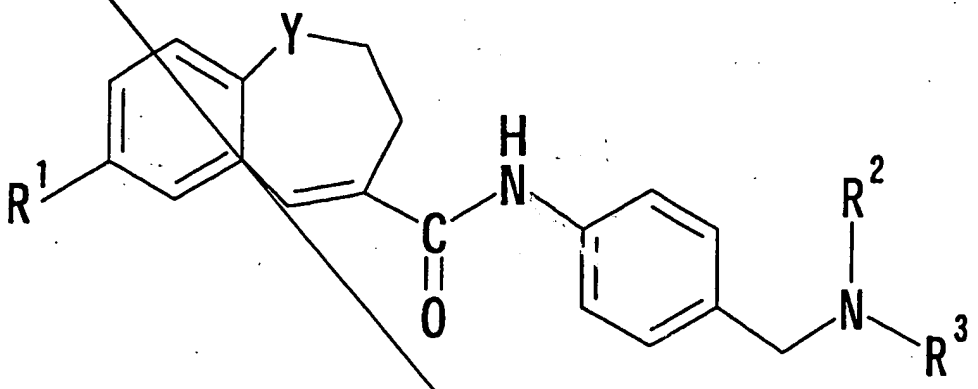
WHAT IS CLAIMED IS:

Amen. a2

1. A compound of the formula (I):



wherein R^1 is a 5- to 6-membered aromatic ring which has a group of the formula: $R\text{-}Z^1\text{-}X\text{-}Z^2$- wherein R is a hydrogen atom or an optionally substituted hydrocarbon group, X is an optionally substituted alkylene chain, and Z^1 and Z^2 are respectively hetero-atoms, and which may have a further substituent, the group R may bind to the 5- to 6-membered aromatic ring to form a ring, Y is an optionally substituted imino group, R^2 and R^3 are respectively an optionally substituted aliphatic hydrocarbon group or an optionally substituted alicyclic heterocyclic group; or a ~~salt thereof.~~

2. A pro-drug of the compound according to claim 1 or a salt thereof.

3. The compound according to claim 1, wherein the 5- to 6-membered aromatic ring is benzene, furan or thiophene.

Amen. A3

4. The compound according to claim 1, wherein the 5- to 6-membered aromatic ring is benzene;

5. The compound according to claim 1, wherein R is an optionally halogenated lower alkyl group.

6. The compound according to claim 1, wherein X is $-(CH_2)_n-$ (n is an integer of 1-4).

7. The compound according to claim 1, wherein Z^1 and Z^2 are respectively -O-, $-S(O)_m-$ (m is an integer of 0-2) or $-N(R^4)-$ (R^4 is a hydrogen atom or an optionally substituted lower alkyl group).

8. The compound according to claim 1, wherein Z^1 is -O- or $-S(O)_m-$ (m is an integer of 0-2).

9. The compound according to claim 1, wherein Z^1 is -O-.

Amen. A4

10. The compound according to claim 1, wherein Z^2 is -O- or $-N(R^4)-$ (R^4 is a hydrogen atom or an optionally substituted lower alkyl group).

11. The compound according to claim 1, wherein Z^2 is -O-.

Amen. A5

12. The compound according to claim 1, wherein Y is $-N(R^5)-$ (R^5 is a hydrogen atom, an optionally substituted hydrocarbon group or an optionally substituted acyl group).

13. The compound according to claim 12, wherein (R^5) is C_{1-4} alkyl, formyl or C_{2-5} alkanoyl.

contd a5

14. The compound according to claim 12, wherein R^5 is a group represented by the formula $-(CH_2)_k-R^6$: wherein k is 0 or 1, and R^6 is an optionally substituted 5- to 6-membered monocyclic aromatic group.

15. The compound according to claim 1, wherein R^2 is an optionally substituted straight chain hydrocarbon group.

16. The compound according to claim 1, wherein R^2 is an optionally substituted lower alkyl group.

17. The compound according to claim 1, wherein R^3 is an optionally substituted alicyclic hydrocarbon group or an optionally substituted alicyclic heterocyclic group.

18. The compound according to claim 17, wherein the alicyclic hydrocarbon group is a lower cycloalkyl group.

19. The compound according to claim 17, wherein the alicyclic hydrocarbon group is cyclohexyl.

20. The compound according to claim 17, wherein the alicyclic heterocyclic group is a saturated alicyclic heterocyclic group.

21. The compound according to claim 17, wherein the alicyclic heterocyclic group is tetrahydropyranyl, tetrahydrothiopyranyl or piperidyl.

22. The compound according to claim 17, wherein the alicyclic heterocyclic group is tetrahydropyranyl.

amen. a6

~~23. A compound selected from the class consisting of.~~

contd. a6

7-(4-ethoxyethoxephenyl)-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carbiboxamide, 1-ethyl-7-(4-propoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-ethoxyethoxyphenyl)-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 1-formyl-7-(4-propoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-1-propyl-2,3-dihydro-1-benzazepine-4-carboxamide, N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-(4-propoxyethoxyphenyl)-1-propyl-2,3-dihydro-1-benzazepine-4-carboxamide, 1-benzyl-7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-cyclopropylmethyl-N-[4-[[N-methyl-

contd. a6

N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-phenyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(3,4-methylenedioxy)phenyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(2-methyloxazol-5-yl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 1-allyl-7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(3-thienyl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-2-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(1-methylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(3-methylisothiazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-

contd. A6

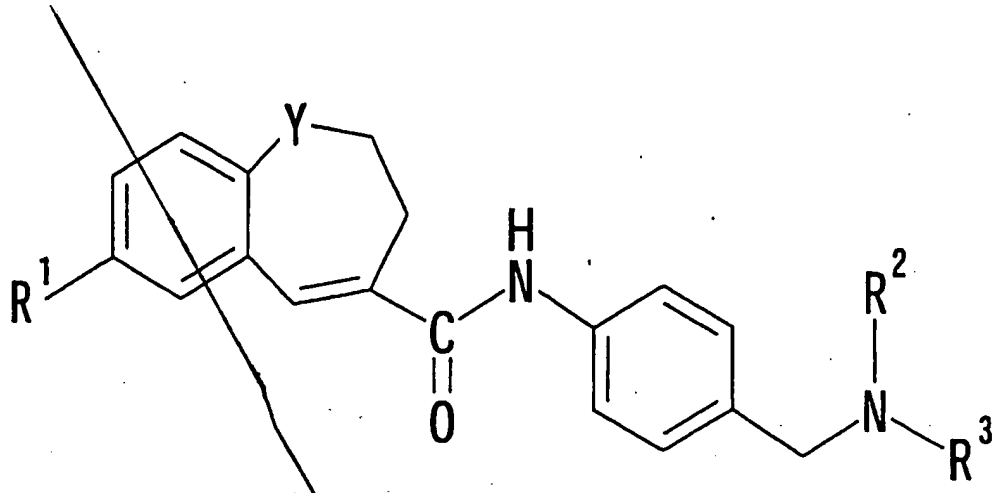
carboxamide, 7-(4-butoxyethoxyphenyl)-1-(1-ethylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-isobutyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 1-isobutyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-(4-propoxyethoxyphenyl)-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-5-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(1-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, and 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(2-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, or salt thereof.

24. A pro-drug of the compound according to claim 23 or a salt thereof.

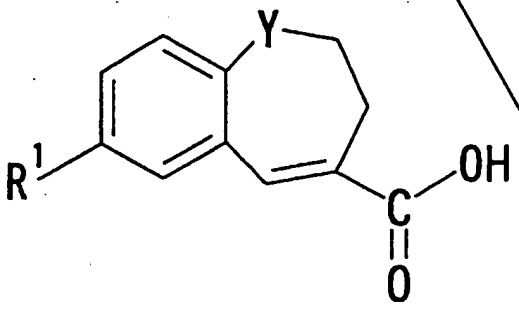
Amen. A7

25. A method for producing a compound of the formula:

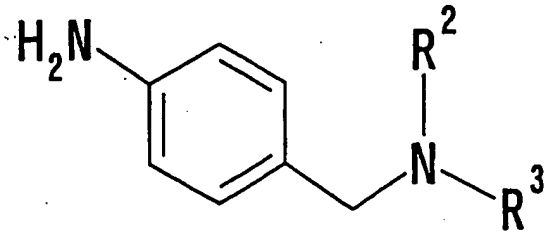
contd. A7



wherein each symbol is as defined in claim 1, or a salt thereof, which comprises subjecting a compound of the formula:



wherein each symbol is as defined in claim 1, a salt or a reactive derivative thereof to a condensation reaction with a compound of the formula:



wherein each symbol is as defined in claim 1, or a salt

contd. A7

~~thereof.~~

26. A pharmaceutical composition which comprises the compound according to claim 1 or a salt ~~thereof.~~

27. The composition according to claim 26, which is a CC chemokine receptor antagonist.

28. The pharmaceutical composition according to claim 26, which is a CCR5 antagonist.

Amen. A8

29. The composition according to claim 26, which ~~is~~ for the treatment or prevention of infectious disease of HIV.

30. The composition according to claim 26, which is ~~for~~ the treatment or prevention of AIDS.

31. The composition according to claim 26, which is for the prevention of the progression of AIDS.

32. The composition according to claim 29, which is used in combination with a protease inhibitor and/or a reverse transcriptase inhibitor.

33. The composition according to claim 32, wherein the reverse transcriptase inhibitor is zidovudine, didanosine, zalcitabine, lamivudine, stavudine, nevirapine, delavirdine, efavirenz or abacavir.

34. The composition according to claim 32, wherein the protease inhibitor is saquinavir, ritonavir, indinavir or nelfinavir.

Amen. A9

~~35. Use of the compound according to claim 1 or a~~

salt thereof in combination with a protease inhibitor and/or a reverse transcriptase inhibitor for the treatment or prebention of infectious disease of HIV.

36. A method for antagonizing a CC chemokine receptor in a mammal, which comprises administering an effective amount of a compound according to claim 1 or a salt thereof to a mammal.

37. Use of a compound according to claim 1 or a salt thereof in preparation of a medicament for antagonizing a CC chemokine receptor.